An Inventory of HIV Prevention Programs Serving African Americans funded by the U.S. Department of Health and Human Services

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Executive Summary

In July 2010, White House released the National HIV/AIDS Strategy for the United States (NHAS) outlining four key goals: 1) reducing new HIV infections, 2) increasing access to care and optimizing health outcomes for people living with HIV, 3) reducing HIV-related health disparities and health inequities, and 4) achieving a more coordinated national response to the HIV epidemic. Each of these has clear implications for African American men and women, who represent 13 percent of the population but account for a disproportionate 46 percent of persons living with HIV. One of the NHAS tasks assigned to the Department of Health and Human Services (DHHS) was "to compile and collectively assess all [of its] effective programs and initiatives for reducing HIV infections among Black Americans."

The purpose of this report is to describe the findings of an interagency collaboration to identify, review, and assess the effectiveness of initiatives and HIV Prevention Programs intended to reduce HIV infections among blacks or African Americans.[1] In particular, it sought to describe effective HIV prevention programs and initiatives, identify gaps and opportunities, and provide insights that may help optimize the deployment of available primary HIV prevention resources for the greatest effect in reducing HIV incidence. The report discusses findings in light of the NHAS implementation goals and identifies future directions to curb new HIV infections among African Americans.

The final sample included 56 unique HIV prevention programs and initiatives serving African Americans that were active between FY09 – FY11. The review assembled evidence of an

[1]The terms "black" or "African American" are used interchangeably in this document and we intend these terms to be inclusive of all individuals from the African Diaspora who identify as black and/or African American.

average annual investment by DHHS of nearly $293 million in prevention programs and initiatives to reduce HIV infection among African Americans. This represents approximately 9 percent of discretionary DHHS HIV services funding; it is noteworthy that racial and ethnic minorities benefit even when programs provide HIV prevention, treatment, or care without targeting any single subgroup of the population. Data limitations constrained our ability to describe effective prevention programs and initiatives. Even so, we found that these investments generally follow the distribution of HIV among African Americans, but that a more systematic review of the effectiveness and regional distribution of effective HHS-funded services may be warranted in order to ensure that resource allocations are optimized. Given the disproportionate impact of HIV among African Americans, ongoing evaluation of federal investments and support for high-impact prevention are needed if we are to fully achieve the National HIV/AIDS Strategy goals.

Introduction

The human immunodeficiency virus (HIV) continues to be a major public health concern in the United States. The Centers for Disease Control and Prevention (CDC) estimated that 1.2 million people 13 years or older were living with HIV at the end of 2010. Of those, an estimated 236,400 (20 percent) were unaware of their infection.[2] In the U.S., gay, bisexual and other men who have sex with men (MSM) represent between 2 percent and 4 percent of the population[3] but account for an estimated 64 percent of new infections.[4] Similarly, a disproportionate impact of the domestic HIV epidemic is also shouldered by African Americans, who represent 13 percent of the U.S. population[5] but account for 46 percent of persons living with HIV. The estimated HIV prevalence rate among African Americans is 7.6 and 2.7 times higher than for whites and Hispanics/Latinos, respectively.[6] A higher percentage of African Americans are living with undiagnosed HIV infection (19.4 percent) compared to whites (14.8 percent).[7]

Racial and ethnic disparities in HIV infection rates in the U.S. are evident at more granular levels of analysis as well. For example, male-to-male sexual contact accounts for an estimated 70 percent of new infections among African Americans, which is 10 percentage points higher than for the entire population. Heterosexual transmission accounts for an

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[2] Centers for Disease Control and Prevention. (2011). HIV surveillance—United States, 1981-2008. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6021a2.htm. Accessed March 2012.

[3] Purcell DW, Johnson C, Lansky A, et al. Presented at 2010 National STD Prevention Conference; Atlanta, GA. abstract #22896. Accessed March 2012.

[4] Prejean J, Song R, Hernandez A, Ziebell R, Green T, et al. (2011) Estimated HIV Incidence in the United States, 2006-2009. PLoS ONE 6(8): e17502.doi:10.1371/journal.pone.0017502.

[5] U.S. Census Bureau. The Black Population: 2010; March 2011. Available at: http://www.census.gov/prod/cen2010/briefs/c2010br-06.pdf Accessed March 2012.

[6] Centers for Disease Control and Prevention. *HIV Surveillance Report, 2010*. Vol. 22. Rev ed. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. http://www.cdc.gov/hiv/resources/factsheets/PDF/LHI-Factsheet-FINAL-6-26-12.pdf. Accessed July, 2012

[7] Centers for Disease Control and Prevention. (2012). Monitoring Selected National HIV Prevention and Care Objectives by Using HIV Surveillance Data—United States and 6 U.S. Dependent Areas—2010. Available at: http://www.cdc.gov/hiv/surveillance/resources/reports/2010supp_vol17no3/index.htm. Accessed July, 2012.

estimated 74 percent of new infections among white women but 84 percent of infections in African American women.[8] Further, the estimated rate of new HIV infections for African American women is more than 15 times higher than the rate for white women.[9] Even variability within regions distinguishes the HIV epidemic for African Americans (see Figure 1): HIV-related morbidity among racial and ethnic minorities living in the Southern U.S. is 2.1 – 4.6 times higher than for whites.[10] Taken together, the evidence is increasingly clear: Curbing the epidemic expeditiously in the U.S. requires a robust national response to HIV that places a focused emphasis on the plight of African Americans.

In July 2010, the White House released the National HIV/AIDS Strategy for the United States (NHAS) that outlined four key goals: 1) reducing new HIV infections, 2) increasing access to care and optimizing health outcomes for people living with HIV, 3) reducing HIV-related health disparities and health inequities, and 4) achieving a more coordinated national response to the HIV epidemic in the U.S.[11] The release of the NHAS was accompanied by a Federal Implementation plan that assigned key tasks to each of the government departments principally involved in HIV activities (i.e., research, prevention, treatment, and care). In addition, a Presidential memorandum directed each department to develop and release an operational plan that would describe goals, objectives, and milestones for tracking progress. One of the NHAS tasks assigned to the Department of Health and Human Services (DHHS) was

[8] Prejean J, Song R, Hernandez A, Ziebell R, Green T, et al. (2011) Estimated HIV Incidence in the United States, 2006-2009. PLoS ONE 6(8): e17502.doi:10.1371/journal.pone.0017502.
[9] Centers for Disease Control and Prevention. HIV among African Americans Fact Sheet. (2012). Available at: http://www.cdc.gov/hiv/topics/aa. Accessed March 2012.
[10] Meditz et al. (2011). Sex, Race, and Geographic Region Influence Clinical Outcomes Following Primary HIV-1 Infection. Journal of Infectious Disease, 203: 442-451.
[11] White House Office of National AIDS Policy. National HIV/AIDS Strategy. Washington, DC: Office of National AIDS Policy; 2010. Available at http://www.whitehouse.gov/administration/eop/onap/nhas. Accessed March 2012.

"to compile and collectively assess all effective programs and initiatives for reducing HIV infections among Black Americans."[12]

The purpose of this report is to describe findings of an interagency collaboration to identify, review, and assess the effectiveness of DHHS-funded, discretionary initiatives and programs to reduce HIV infections among African Americans. In particular, the report describes relevant prevention programs and initiatives, identifies gaps and opportunities, and provides insights that may help optimize the deployment of available prevention resources to the greatest effect for reducing HIV incidence. It discusses findings in light of the NHAS implementation goals and identifies future directions to decrease new HIV infections among African Americans.

Methods

In February 2011, the DHHS Office of the Assistant Secretary for Health (OASH) consulted with key leaders across the Department's relevant Operating Divisions (OpDivs) and Staff Divisions to identify designees to serve on a DHHS African American Program Inventory Working Group. Members were charged with developing, implementing, and interpreting the results from a review of federally funded programs and initiatives to reduce HIV infections among African Americans. The final Working Group consisted of representatives from the Departments of Housing and Urban Development (HUD), Justice/Bureau of Prisons (DOJ/BOP), and Veterans Affairs (VA); Centers for Disease Control and Prevention's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (CDC NCHHSTP); Health Resources and Services Administration's HIV/AIDS Bureau (HRSA HAB); National Institutes of Health Office of

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AIDS Research (NIH OAR); Substance Abuse and Mental Health Services Administration's (SAMHSA) Centers for Substance Abuse Prevention (CSAP), Treatment (CSAT), and Mental Health Services (CMHS); and OASH Offices of Minority Health (OMH), Population Affairs (OPA), Women's Health (OWH), and HIV/AIDS and Infectious Disease Policy (OHAIDP). The findings of this report do not include information for non-HHS programs.

Selection Criteria. The Working Group established criteria and methods for identifying, reviewing, and coding programs and initiatives for primary prevention (i.e., those designed to reduce HIV incidence) and secondary prevention (i.e., those designed to reduce prevalence and severity of disease through early detection, risk reduction, and partner intervention) supported by DHHS funds that address the needs of African Americans. HIV prevention programs deemed eligible for inclusion were: 1) federally funded; 2) recently funded (<5 years), or approved for funding but pending an award; and 3) intended to reduce HIV infections among African Americans or support related programmatic efforts (e.g., capacity building). Programs need not have served African Americans exclusively to be included in the review. Surveillance activities and non-discretionary and non-domestic prevention programs and initiatives were excluded.

Variables. The review used both process and outcome indicators. Process variables included program funding (i.e., funding agency, goals and objectives, funding levels, fiscal year, project period, performance sites), program characteristics (i.e., numbers served or enrolled, program aims, implementation sites, activity settings and scope), and client characteristics (i.e., percentage African American clients, subgroups served (e.g., MSM, women), and degree to which prevention programs were culturally tailored for African Americans. In addition, OpDivs submitted data for prevention programs and initiatives describing their evaluation design (i.e.,

experimental, quasi-experimental, and non-experimental), primary endpoints, and, evidence of effectiveness. Effectiveness was conceptualized in a manner consistent with Flay et al. (2005), referring to interventions that have been rigorously evaluated under real-world conditions and have yielded measurable intervention outcomes.[13] In the absence of such evidence, OpDivs provided their professional judgment of eligible prevention programs' effectiveness in averting HIV infections in real world settings using a 3-point scale ranging from not effective to very effective. Based on the selection criteria, OpDivs identified eligible prevention programs, assembled data for key variables, and submitted the data using an online tool. Data were extracted from funding announcements, performance reports, and annual progress reviews. In most cases, funding data were obtained from OpDiv financial management staff. In selected cases, narrative summaries were included for large DHHS prevention programs and initiatives that serve broader segments of the U.S. population without focusing on African Americans (e.g., CDC's health department funding, HRSA's Ryan White Program).

Data Analysis. Data were compiled and downloaded using standard spreadsheet software. Planned quantitative data analyses included descriptive statistics for the entire sample, as well as subset analyses of those prevention programs evaluated with experimental or quasi-experimental designs and that offered evidence of effectiveness. We elected to focus on fiscal years 2009 - 2011 on the basis of recency and the completeness of data provided by OpDivs.

[13] Flay BR, Biglan A, Boruch RF, Castro FG, Gottfredson D, Kellam S, Moscicki EK, Schinke S, Valentine JC, & Ji P. (2005). Standards of Evidence. Criteria for efficacy, effectiveness, and dissemination. Prevention Science, 6(3), 151-75.

Results

Federal partners determined that 143 HIV prevention programs met eligibility criteria but 35 (24.5 percent) were NIH research projects deemed fundamentally different from HIV prevention programs and initiatives and were removed from this analysis. Of the remaining prevention programs, 52 (36.4 percent) were dropped from subsequent analyses for the following reasons: 34 (23.8 percent) terminated prior to FY09; 7 (4.9 percent) initiated after FY11; 5 (3.5 percent) were duplicate entries; 4 (2.8 percent) reported serving no African American clients; and 2 (1.4 percent) were deemed ineligible due to a lack of specificity regarding the extent to which African Americans were served. The final sample included 56 unique prevention programs and initiatives that were active between FY09 – FY11 (see Appendix A).

HIV Prevention Programs. Table 1 shows the number and funding levels for programs and initiatives to reduce HIV infections among African Americans reported by OpDivs for FY09 – FY11. Although 56 unique programs met inclusion criteria, only 40 - 46 HIV prevention programs were funded in any given year, averaging nearly $293 million for each of the three years examined. An increase in FY2010 funding is attributable in part to the CDC's Expanded Testing Initiative. The largest percentage of total funding during this period is attributed to CDC (54.8 percent), SAMHSA (21.1 percent), and HRSA (11.8 percent). OASH Staff Divisions each accounted for an additional 2.2 percent – 3.8 percent of the total. In terms of numbers of initiatives, CDC accounted for 54.3 – 57.5 percent of those reported per year. Table 1 also shows that there was variability within and between funding entities. Some OpDivs reported

relatively stable funding during this period (SAMHSA); others reported funding that varied from year to year (CDC) or decreased due to the end of a funding cycle, such as with HRSA's completion of Special Projects of National Significance (SPNS) programs. It is noteworthy that total and percentage funding reported for HIV prevention programs and initiatives serving African Americans reflect all relevant sources and not simply those provided by the Minority AIDS Initiative, which serves subgroups in addition to African Americans for prevention as well as other services.

Table 2 shows the estimated percentage of prevention programs and initiatives serving African Americans, even if not exclusively, by DHHS Region and their estimated expenditures. It also compares these to the percentage of the CDC's estimated HIV diagnoses among African Americans in 2010 and the U.S. Census Bureau's estimates of the 2010 African American population.[14] We examined the deployment of existing prevention programs using the DHHS Regional Map, which divides the U.S. into ten regions each with a major city serving as the hub.[15] In general, the percentage of African American HIV cases parallels the estimated percentage of the African Americans living in each region. Notably, the data also indicated that Regions 4 (Atlanta), 2 (New York City), 6 (Dallas) and 9 (San Francisco) accounted for 54.3 percent of included prevention programs and initiatives funded by DHHS.

Furthermore, Table 2 shows that the distribution of prevention programs (and their estimated funding levels) is not entirely consistent with the distribution of the African American

[14] U.S. Census Bureau (2011). The Black Population: 2010 Census Briefs. Available at: http://www.census.gov/prod/cen2010/briefs/c2010br-06.pdf. Accessed May, 2012.

[15] **Region 1** - Boston: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; **Region 2** - New York: New Jersey, New York, Puerto Rico, and the Virgin Islands; **Region 3** - Philadelphia: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia; **Region 4** - Atlanta: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; **Region 5** - Chicago: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; **Region 6** - Dallas: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas; **Region 7** - Kansas City: Iowa, Kansas, Missouri, and Nebraska; **Region 8** - Denver: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; **Region 9** - San Francisco: Arizona, California, Hawaii, Nevada, American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Marshall Islands, and Republic of Palau; **Region 10** - Seattle: Alaska, Idaho, Oregon, and Washington.

HIV epidemic in the U.S. (See Figure 1). Some regions accounted for a larger share of nationally fielded prevention programs serving African Americans than their percentage of African American HIV cases might predict (i.e., Regions 8 [Denver], 10 [Seattle], 7 [Kansas City], and 1 [Boston]). For example, Region 8/Denver accounts for 5 percent of national prevention programs serving African Americans during this period yet had only 0.5 percent of African American HIV cases in 2010. Correspondingly, other regions accounted for a smaller proportion of prevention programs than would be expected given their fraction of African American HIV cases (i.e., Regions 2 [Hub: New York], 3 [Philadelphia], and 4 [Atlanta]). By way of illustration, Region 2 (NYC) accounts for 14.5 percent of national prevention programs and 19.9 percent of 2010 HIV cases among African Americans. Figure 2 provides these data in graphical form. Most prevention programs were implemented in urban (37.5 percent) or urban and rural settings (60.7 percent); 1.8 percent was unknown (data not shown).

Program Goals. Table 3 presents the number of, and funding for, prevention programs and initiatives serving African Americans in FY09 – FY11 as reported by primary purpose. According to funding allocated, most programs provided HIV prevention and related services (71.7 percent); mental health/substance use (11.8 percent); outreach and education (5.2 percent); and family planning services (3.8 percent). Few initiatives described as their primary purpose capacity building, system navigation, media campaign implementation, or staff training, although these commonly were reported as secondary or tertiary aims.

Table 4 presents the number and percentage of prevention programs and initiatives to reduce HIV infections among African Americans by setting, and shows that community based organizations (75 percent) were the single most commonly reported setting, followed by clinical

care (57.1 percent), educational (39.3 percent), public (33.9 percent), faith-based (33.9 percent), mobile testing (28.6 percent), and corrections settings (25.0 percent). Less frequently reported settings included Gay Pride events (17.9 percent), clubs and parties (16.1 percent), Health Departments (8.9 percent), or syringe exchange services prevention programs (5.4 percent). *The latter were awarded and implemented after the modification of the federal legislative funding ban on syringe exchange in FY10, and prior to its reinstatement in FY12*.

Clients Served. Table 5 presents the percentage of African American clientele served and the percentage of expenditures accounted for by each category between FY09 – FY11. It shows that 17.9 percent of included prevention programs served African Americans exclusively; these programs accounted for 2.2 percent of total HIV prevention program expenditures. An additional 60.7 percent of prevention programs served a clientele consisting of 51 – 99 percent African Americans and accounted for another 46.6 percent of total expenditures. Only 21.4 percent of HIV prevention programs served a clientele that was less than 50 percent African American, but they accounted for 51.2 percent of expenditures. It is noteworthy that racial and ethnic minorities benefit from large, resource-intensive programs implemented nationwide even when these provide HIV prevention, treatment, or care without targeting any single subgroup of the population. As an example, African Americans accounted for 57.4 percent of reported HIV testing events and 66.0 percent of newly identified confirmed HIV-positives in the CDC Expanded Testing Initiative that was funded at nearly $70 million over two years.[16] Similarly, the CDC Health Department Prevention program supporting HIV counseling, testing

[16] CDC (2011). Expanded Testing Program Overview. http://www.cdc.gov/hiv/resources/factsheets/HIV-ETP.htm . Accessed May 2012.

and referral (CTR) activities served a clientele that was 40 percent African American.[17] SAMHSA discretionary prevention programs included here served a clientele comprised of 50 – 68 percent African Americans across its prevention, treatment and mental health services prevention programs.

In a large majority of cases (89.3 percent), prevention activities were described as culturally tailored by OpDiv representatives (data not shown). Although the Office of Minority Health has published the National Standards for Culturally and Linguistically Appropriate Services in Health Care (CLAS Standards), which provides the framework for all health care organizations to serve the nation's increasingly diverse communities,[18] these standards may not have been consistently met by included programs and initiatives.

Table 6 presents the number and percentage of prevention programs serving subgroups of African Americans between FY09 – FY11. The data indicate that a substantial number of prevention programs and initiatives served persons younger than 25 years (67.9 percent), heterosexual women (58.9 percent), heterosexual men (44.6 percent), men who have sex with men (39.3 percent), injection drug users (33.9 percent), transgender persons (28.6 percent), and the perinatally exposed (10.7 percent). Note that these groupings are not mutually exclusive. A smaller fraction of prevention programs was described as exclusively serving these subgroups, including MSM (12.5 percent), youth (7.1 percent), and heterosexual women (5.4 percent). No reported prevention programs exclusively served African American injection drug users, transgender persons, heterosexual men, or the perinatally exposed.

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[17] CDC (2011) Funding Allocations Distributed Under Program Announcement (PA) 04012 by State and Local Health Departments in 2008 and 2009 for CDC-Supported HIV Prevention Projects. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Available at:http://www.cdc.gov/hiv/resources/reports/pdf/2008-2009_funding_allocations_report.pdf. Accessed May 2012.
[18] Office of Minority Health. (2011). What are the CLAS Standards? Available at: https://www.thinkculturalhealth.hhs.gov/Content/clas.asp. Accessed March 2012.

Table 7 presents the outcomes measured by prevention programs and initiatives serving African Americans. Nearly 60 percent of these included HIV testing events as outcomes; 55.4 percent included changes in individual knowledge, attitudes, and risk behaviors; and 50.0 included linkage to care. Few programs addressed other important steps in the HIV prevention-treatment cascade beyond testing, including retention in care (16.1 percent), timely HIV diagnosis (8.9 percent) or achievement of viral suppression (7.1 – 12.5 percent). This suggests an important missed opportunity to address the challenge of achieving durable viral suppression in racial and ethnic minorities living with HIV.[19] An unexpected finding was that nearly 18 percent of prevention programs sought to measure reductions in stigma and discrimination. Insufficient data submitted about the real world effectiveness of these and other prevention programs precluded an analysis of their impact on averting HIV infections.

Supplemental Information. The DHHS National HIV/AIDS Strategy Operational Plan describes FY10 HIV/AIDS discretionary extramural funding of $6.3 billion allocated to research and dissemination (47 percent); HIV medical or health care services (27 percent); evaluation, policy, and support services (11 percent); and prevention and education services (7 percent). A lack of standardization across programs precluded a direct comparison of funding allocations described here and those reported in the DHHS operational plan. The following supplemental narrative information was provided by selected DHHS OpDivs charged with implementing HIV prevention, treatment, or care programs for which precise estimates of African Americans clients served were unavailable.

[19] Centers for Disease Control and Prevention. Vital Signs: HIV Prevention Through Care and Treatment — United States. (2011). Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6047a4.htm?s_cid=mm6047a4_w. Accessed March 2012.

Although it is not possible to describe in comprehensive detail the extent to which DHHS HIV prevention programs served African Americans, some observations are noteworthy. For example, approximately 40 percent of Medicare and 47 percent of Medicaid beneficiaries living with HIV are African American.[20] The Affordable Care Act, when fully implemented, will extend health coverage to an estimated 34 million Americans, including as many as 7 million African Americans, in the form of comprehensive, affordable coverage made available through new state health insurance exchanges, Medicaid, and the Children's Health Insurance Programs.[21] Similarly, 47 percent of clinical care visits supported by HRSA's FY10 $2.2 billion Ryan White program were attended by African Americans, suggesting that these clients received over $1 billion in federally-funded medical services.

Although not detailed in this report, HRSA's Bureau of Primary Health Care (BPHC) served over 4 million African Americans in its extensive, national network of health centers by providing HIV testing, other preventive services, and comprehensive primary care services.[22] Still other large DHHS initiatives were fielded between FY09 – FY11, including the CDC's FY10 health department initiative, which allocated approximately $300 million of its total $799 million budget to HIV prevention services. This initiative was not exclusively directed to the prevention needs of African Americans and lack of uniform client-level data systems prevented an analysis of impact by population subgroups.

[20] DHHS Operational Plan, 2011
[21] White House (2011). The President's Agenda and the African American Community. Available at: http://www.whitehouse.gov/sites/default/files/af_am_report_final.pdf. Accessed July 2012.
[22] HRSA Health Center Data. Available at: http://bphc.hrsa.gov/uds/raceethnicitylanguage.aspx?year=2010&state. Accessed July 2012.

Discussion

As noted previously, the purpose of this report is to describe the findings of an interagency collaboration to identify, review, and assess the effectiveness of initiatives and programs intended to reduce HIV infections among African Americans. In particular, it seeks to describe effective HIV prevention programs and initiatives, identify gaps and opportunities, and provide insights that may help optimize the deployment of available prevention resources for the greatest effect on reducing HIV incidence.

This review assembled evidence of an average annual investment of nearly $293 million in programs and initiatives by DHHS to reduce HIV infection among African Americans for each of the fiscal years 2009 – 2011. This amount represents approximately 9 percent of DHHS discretionary extramural funding for HIV prevention, treatment, or care services. It is noteworthy that racial and ethnic minorities benefit even when programs provide HIV prevention, treatment, or care without targeting any single subgroup of the population. Unfortunately, the absence of client-level, effectiveness data precludes a more fine-grained analysis of the extent to which racial and ethnic minority groups are effectively served by these prevention programs and initiatives.

This review also shows that these investments generally follow the epidemiology of HIV among African Americans. A systematic review of the effectiveness and regional distribution of effective HHS-funded services may help to ensure that resource allocations are optimized. This may be especially important for preventing new HIV infections in subgroups of African

Americans with the highest incidence rates, including adult and adolescent MSM, injection drug users, and women, including transgender women.

The regional distribution of DHHS-funded HIV prevention programs and initiatives for African Americans merits further consideration. In most cases, funding is awarded to states, cities, and organizations based on disease distribution; as such, geographic reallocation of resources may lag behind demographic changes in the epidemic. The latter may account for the somewhat larger than expected investments in regions with smaller numbers of African American HIV cases.[23] Although the possibility exists that prevention programs and initiatives reported for one region may have sites in other regions, thereby distorting the numbers of prevention programs per region, an inspection of submitted data suggests that this applies only to a few of the cases reviewed. Thus, whereas the distribution of prevention programs generally follows the epidemic, these data provide a basis for further improvements in the targeting of prevention programs and initiatives using current demographic, geographic, and epidemiological data, some of which have already been initiated by HHS.

This review has several limitations. First, the lack of client-level data constrained our ability to describe with confidence the effectiveness of HIV prevention programs and initiatives intended to prevent HIV infections among African Americans by region, subgroup, or other key parameters. Second, a reliance on non-systematic data reporting may have resulted in measurement error that limits confidence in the findings. For example, in some instances there is reason to believe that budget information was based on informed estimates rather than on official records. The same may be true for data on specific subgroups served (e.g., youth,

[23] Mansergh et al. (2012). Aligning Resources to Fight HIV/AIDS in the United States: Funding to States Through the U.S. Department of Health and Human Services. Journal of Acquired Immune Deficiency Syndromes: 15 April 2012 - Volume 59 - Issue 5 - p 516–522.

women) and other facets of the review. Only a limited number of prevention programs reported precise numbers for persons served, including the CDC's Health Department program and Expanded Testing Initiative, and all SAMHSA prevention programs (see Appendix A).

Third, many identified prevention programs submitted by the OpDivs sought to achieve several goals. The CDC's provision of capacity building technical assistance in all of its funded prevention programs is a case in point. The methodology deployed here, which required OpDiv staff to identify a single, primary purpose for each program or initiative, may not have fully captured the range of services supported. Fourth, this review did not collect data about the public health infrastructure or the coordination needed to enhance the provision of effective HIV prevention services to African Americans.

A fifth limitation was that despite an effort to provide operational definitions for the variables of interest, there was evidence of inconsistent understanding of data elements and key constructs, such as how best to report percentages of African Americans served in the absence of client level data systems. Similar differences in operational definitions constrained our ability to describe the extent to which interventions were culturally tailored or addressed specific health disparities. Sixth, and potentially of most concern, insufficient effectiveness data for included prevention programs and initiatives impeded the determination of what worked and for whom. While most of the interventions fielded within programs were based on efficacy data derived from rigorous, randomized controlled trials, the data submitted for this review provided little basis for determining how effective these prevention programs were when delivered in real-world settings by community-based service providers.

Despite these limitations, this review of DHHS programs to prevent HIV infections among African Americans does provide useful information for future directions. For example, the lack of uniform client-level data might be remedied by an electronic resource capable of securely accessing and compiling DHHS-funded, programmatic data that can permit more granular analyses of how funding is allocated according to the epidemiology of HIV, population parameters, and other important considerations. Doing so may also highlight opportunities to eliminate differential attrition from the prevention-treatment continuum associated with race and ethnicity, sex, and region of residence. This analysis also suggests the potential for using existing data to inform decision-making about resources so that they are deployed in a manner that maximizes their impact. Finally, this review points to a critical need to systematically collect outcome data for programs intended to curb new infections in real world settings.

Although this review does not offer definitive evidence to serve as the basis for optimizing prevention services intended for African Americans or other subgroups at increased risk for HIV infection, it adds support for related efforts that are already underway. In 2011, the CDC and its federal partners launched a new High Impact HIV Prevention initiative intended to enhance the impact of prevention services for "all Americans at risk for HIV infection, including gay and bisexual men, communities of color, women, injection drug users, transgender women and men and youth."[24] By selectively targeting combinations of interventions that are efficacious, cost-effective, and scalable, it is anticipated that this approach will better address existing social, community, economic and other structural factors that drive the HIV epidemic among African Americans and others in the U.S.

[24] Mermin J. The Science and Practice of HIV Prevention in the United States. 18th Conference on Retroviruses and Opportunistic Infections. Boston, February 27-March 2, 2011. Paper #19.

Summary

Taken together, this review describes a portion of the DHHS investment in HIV prevention that serves African Americans for the fiscal years 2009 – 2011. While these investments generally follow the distribution of the African American HIV epidemic, this review found preliminary evidence suggesting that more focused prevention program development and targeting of services may be warranted, particularly in disproportionately affected subpopulations (e.g., young MSM, and women) and U.S. regions (i.e., South, Northeast). Given the inequities in HIV rates among African Americans, a more systematic review may be needed to inform the optimal distribution of these federal investments if we are to fully achieve the National HIV/AIDS Strategy goals of reducing the number of people who become infected with HIV, increasing access to care and optimizing health outcomes for people living with HIV, and reducing HIV-related health disparities.

Table 1. Number, Funding, and Percentage of Funding for HIV Prevention HIV Prevention Programs/Initiatives serving African Americans, by Operating Division and Staff Office (N = 56), FY2009 – 2011

	FY 2009		FY 2010		FY 2011		Total Funding	
	N	$	N	$	N	$	$	(%)
CDC	23	140,227,257	25	175,376,867	23	165,895,976	481,500,100	54.8
SAMHSA	3	60,955,962	3	62,031,972	3	62,739,812	185,727,746	21.1
HRSA	3	51,196,866	2	37,966,201	1	14,833,605	103,996,672	11.8
OASH	11	37,011,678	16	36,780,723	14	33,423,412	107,215,813	12.3
OPA	*1*	*11,062,000*	*1*	*11,493,765*	*1*	*10,450,000*	*33,005,765*	*3.8*
OMH	*4*	*10,827,950*	*5*	*10,881,730*	*5*	*8,431,684*	*30,141,364*	*3.4*
OWH	*4*	*8,980,000*	*6*	*8,100,000*	*6*	*8,100,000*	*25,180,000*	*2.9*
OHAIDP	*2*	*6,141,728*	*4*	*6,305,228*	*2*	*6,441,728*	*18,888,684*	*2.2*
TOTAL	40	289,391,762	46	312,155,763	41	276,892,805	878,440,330	100.0

Notes:

1: Total and percentage funding reported for HIV prevention programs and initiatives serving African Americans reflect all relevant sources and not simply those provided by the Minority AIDS Initiative, which serves subgroups in addition to African Americans for prevention as well as other services.

2: Although 56 unique programs met inclusion criteria, only 40 - 46 HIV prevention programs were funded in any given year.

Table 2. Estimated Percentage of HIV Prevention Programs and Funding serving African Americans (N = 56), and Distribution of African American HIV Cases and Population, by DHHS Region

Region	Programs (%)	Funding* (%)	African American HIV Cases 2010 (%)**	African American Population 2010 (%)***
1 BOS (CT, ME, MA, NH, RI, VT)	7.4	9.8	2.3	2.5
2 NYC (NJ, NY, PR, VI)	14.5	14.5	19.9	12.2
3 PHI (DE, DC, MD, PA, VA, WV)	11.2	11.0	16.9	13.0
4 ATL (AL, FL, GA, KY, MS, NC, SC, TN)	15.6	13.7	31.9	32.0
5 CHI (IL, IN, MI, MN, OH, WI)	11.2	11.7	10.2	15.0
6 DAL (AR, LA, NM, OK, TX)	12.3	11.1	10.2	12.9
7 KC (IA, KS, MO, NE)	6.3	4.7	1.6	2.7
8 DEN (CO, MT, ND, SD, UT, WY)	5.1	5.8	0.5	0.8
9 SFO (AS, AZ, CA, GU, HI, NV, MP, FM, MH, PW)	11.9	12.1	5.9	7.7
10 SEA (AK, ID, OR, WA)	4.5	5.6	0.6	1.2

*Estimated percentage of funding assumes equal distribution of resources across all regions in which the HIV Prevention Programs and initiatives were implemented.

**CDC Surveillance report, Table 21 - Adults and adolescents living with a diagnosis of HIV infection, by race/ethnicity and area of residence, year-end 2009

***U.S. Census Data, 2010

Figure 1. Rates of Black Persons Living with an HIV Diagnosis, by County, 2009

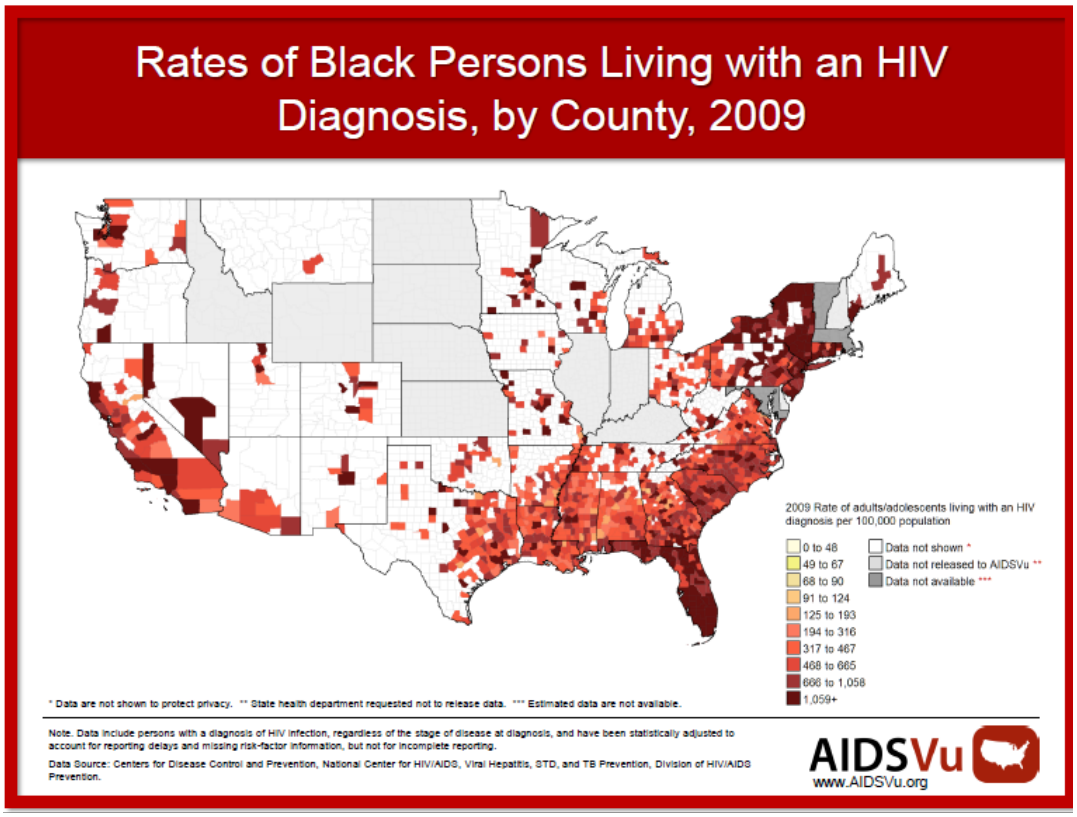
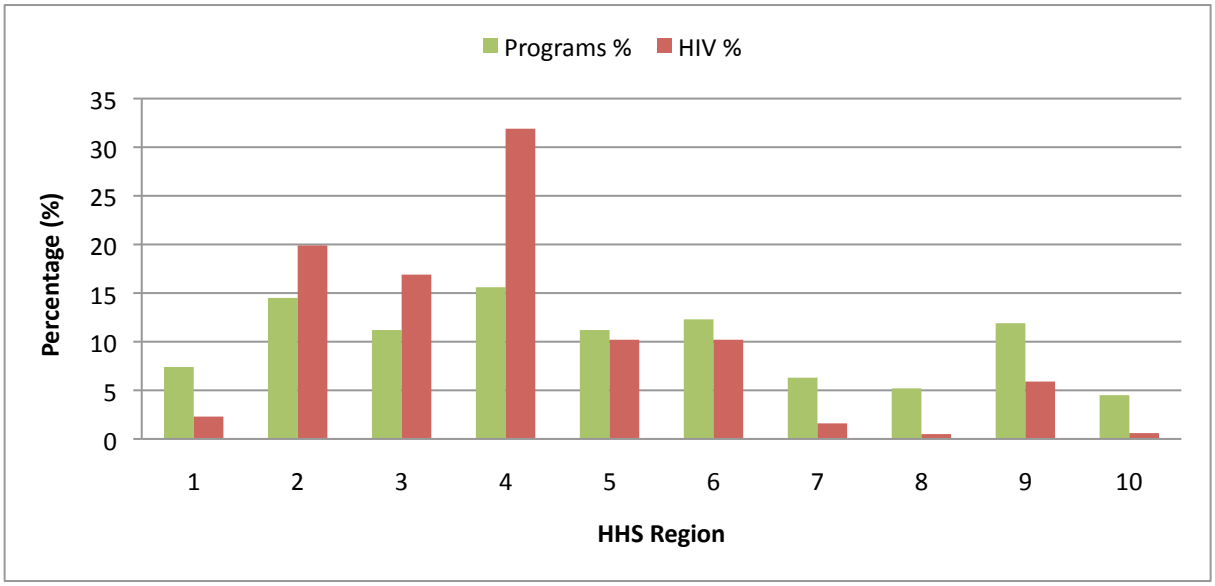


Figure 2. Percentage of HIV Prevention Programs for FY2009 – 2011 Serving African Americans and 2010 HIV cases among African Americans (N = 56), by DHHS Region*



Note: "Programs" and "HIV" refer respectively to the percentage of all programs serving African Americans and African American HIV cases by Region, regardless of an AIDS diagnosis.

*Region 1 - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Region 2 - New Jersey, New York, Puerto Rico, and the Virgin Islands; Region 3 - Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia; Region 4 - Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; Region 5 - Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; Region 6 - Arkansas, Louisiana, New Mexico, Oklahoma, and Texas; Region 7 - Iowa, Kansas, Missouri, and Nebraska; Region 8 - Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; Region 9 - Arizona, California, Hawaii, Nevada, American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Marshall Islands, and Republic of Palau; Region 10 - Alaska, Idaho, Oregon, and Washington.

Table 3. Number and Percentage Funding of HIV Prevention Programs/Initiatives serving African Americans, by Primary Purpose (N = 56), FY 2009 – 2011

Purpose	N (%)	Funds ($)	Funds (%)
Prevention and related services	16 (28.6)	629,771,671	71.7
Mental Health/Substance Use Treatment	2 (3.6)	103,656,995	11.8
Outreach/Education	12 (21.4)	45,266,357	5.2
Family planning	1 (1.8)	33,005,765	3.8
Capacity building/Technical Assistance	3 (5.3)	19,228,539	2.2
Evaluation	9 (16.1)	18,246,650	2.1
Research	6 (10.7)	14,447,841	1.6
System Navigation	2 (3.6)	11,610,022	1.3
Media campaigns	2 (3.6)	2,720,189	<1.0
Staff training	3 (5.3)	486,301	<1.0
	56 (100)	878,440,330	100.0

Notes: Observations are mutually exclusive. Total and percentage funding reported for HIV prevention programs and initiatives serving African Americans reflect all relevant sources and not simply those provided by the Minority AIDS Initiative, which serves subgroups in addition to African Americans for prevention as well as other services.

Table 4. Number and percentage of HIV Prevention Programs/Initiatives serving African Americans, by Setting (N=56), FY 2009-2011

Setting	N	(%)
Community Based Organization	42	75.0
Clinic/Community Health Center/Hospital	32	57.1
College/University campus	22	39.3
Public spaces	19	33.9
Faith-based setting	19	33.9
Mobile Unit (Counseling, Testing, Referral)	16	28.6
Corrections	14	25.0
Traditional media (e.g., newspaper or radio ads)	14	25.0
Fairs/Expos	14	25.0
Homeless/Domestic Violence shelter	13	23.2
New/social media	12	21.4
Gay Pride events	10	17.9
Clubs/Parties	9	16.1
Barbershop/Salon	8	14.3
Bars/Restaurants	8	14.3
Training	7	12.5
Commercial Sex Venues	5	8.9
Health Department	5	8.9
Syringe exchange*	3	5.4
Bathhouses	1	1.8

Note: Observations are not mutually exclusive.

*Reflects HIV Prevention Programs and initiatives awarded after the FY10 modification to the federal legislative funding ban on syringe exchange, and before its instatement in FY12.

Table 5. Percentage and Expenditures for HIV Prevention Programs and Initiatives for African Americans, by Percentage African American Clients Served (N=56), FY2009 – 2011

Percentage African American Clients	Programs (%)	Expenditures (%)
1 – 25%	3 (5.3)	17,568,807 (2.0)
26 – 50%	9 (16.1)	432,192,642 (49.2)
51 – 75%	18 (32.1)	377,729,342 (43.0)
76 – 99%	16 (28.6)	31,623,852 (3.6)
100%	10 (17.9)	19,325,687 (2.2)

Notes: Observations are mutually exclusive. Total and percentage expenditures reported for HIV prevention programs and initiatives serving African Americans reflect all relevant sources and not simply those provided by the Minority AIDS Initiative, which serves subgroups in addition to African Americans for prevention as well as other services.

Table 6. Number and Percentage of HIV Prevention Programs/Initiatives Serving African American Subgroups (N=56), FY2009 – 2011

	Any	Exclusively
	N (%)	N (%)
Youth <25 years	38 (67.9)	4 (7.1)
Heterosexual women	33 (58.9)	3 (5.4)
Heterosexual men	25 (44.6)	0 (0.0)
Men who have sex with men*	22 (39.3)	7 (12.5)
Injection drug users	19 (33.9)	0 (0.0)
Transgender persons	16 (28.6)	0 (0.0)
Perinatally exposed	6 (10.7)	0 (0.0)

Note: Observations are *not* mutually exclusive.

*Includes gay, bisexual, and other men who have sex with men.

Table 7. Frequency of Outcomes Measured by HIV Prevention Programs/Initiatives serving African Americans (N=56), FY 2009 – 2011

Outcome	N	%
Number of HIV tests	33	58.9
Change in Knowledge, attitudes, behavior	31	55.4
Referral and linkage to HIV treatment/care	28	50.0
Staff or Providers trained	23	41.1
Reduced disparities in HIV	16	28.6
Linkage to partner services	12	21.4
Referral to support services	11	19.6
Reductions in stigma/discrimination	10	17.9
Retention in treatment /care	9	16.1
Housing assistance provided	6	10.7
Late HIV diagnoses	5	8.9
Sexually Transmitted Infections (non-HIV)	4	7.1
Viral suppression (individual or community)	4	7.1
Biomarkers (viral load, CD4)	3	5.4

Note: Observations are *not* mutually exclusive.